



AFRICAN WOMEN AND YOUTH AS AGENTS OF CHANGE THROUGH TECHNOLOGY AND INNOVATION

May 1, 2013
Conference Report

The Africa Program established at the Woodrow Wilson International Center for Scholars in 1999 with the generous support of the Ford Foundation. Serving as a bridge for academics, diplomatic practitioners, policymakers, and the private sector, from Africa and the United States, the Africa Program is a nexus for developing informed and effective policy decisions on Africa and conducting conflict transformation and peace building programs in selected African countries. In 2005, the Africa Program created the **Project on Leadership and Building Leadership State Capacity** to broaden the application of its peace building and post-conflict work to a global stage and to promote more sustainable approaches to international conflict prevention and post-conflict reconstruction through comparative, empirical research and “lessons learned” studies. One of the major projects currently underway as a joint program initiative is called Southern Voices in the Northern Policy Debate, which seeks to increase the visibility and outreach of African perspectives and research into policy circles and discussions in the United States.

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By Gregor Young



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Introduction

Investments in science, technology and innovation are becoming increasingly critical for sustainable development, particularly in Africa. New generations of women and youth leaders throughout the continent are developing innovative strategies and solutions using new technologies that will help overcome daily issues on both local and national levels. According to a World Bank report published in 2012, women and girls account for 50.01 percent of the total population in sub-Saharan Africa.¹ The African Union Commission (AUC) Youth Division estimates that approximately 65 percent of the total population is below the age of 35 years, and over 35 percent are between the ages of 15 and 35 years, making Africa the most youthful continent in the world. By 2020, the AUC projects that out of every four people, three will be 20 years old on average. Compound these statistics with the fact that about ten million African youth join the labor market each year.²

With regard to technological capacities, 650 million individuals had mobile subscriptions in 2012, making the African mobile telephone market bigger than that of either the EU or the United States. Similarly, Internet bandwidth available to Africa's one billion citizens has grown 20-fold since 2008. Countries like Kenya and Senegal are capitalizing on access to these technologies and are implementing ICT-enabled trade facilitation initiatives for economic growth.

Another promising development is the concept of "Technology Hubs," centers that create new spaces for collaboration, innovation, and training for Africa's youth and female populations. Several hubs have emerged over the past couple of years, iHub and NaiLab in Kenya, Hive CoLab and AppLab in Uganda, Activspaces in Cameroon, BantaLabs in Senegal, Kinu in Tanzania, and several others in South Africa.

Given the rapid growth in technology use and the demographic breakdown and projections on the continent, it is clear that African youth and women have tremendous innovation capacities yet to be fully harnessed for sustainable development throughout Africa.

On May 1, 2013, the Africa Program and the Project on Leadership and Building State Capacity (Leadership Project) at the Woodrow Wilson International Center for Scholars (Wilson Center) sought to highlight some of the exciting developments by women and youth in Africa utilizing technology and social innovations to tackle every day issues. In collaboration with several other Wilson Center programs and the Kenyan-based African Technology Policy Studies Network, The Africa Program and Leadership Project hosted an international conference titled, **"African Women and Youth as Agents of Change through Technology and Innovation."**

The two-panel conference featured several examples of technological innovations by women and emerging youth leaders in Africa; as well as speakers who spoke to the importance of mentorship, skills training, and providing support to future generations of African women and youth who will become the leaders of tomorrow. The panelists shared their experiences with technology and innovation, and discussed their objectives for advancing development of both their countries and local communities.



FROM LOCAL TO GLOBAL, RURAL TO URBAN: PROBLEM-SOLVING THROUGH INNOVATIVE SOLUTIONS FOR SUSTAINABLE DEVELOPMENT

The first panel highlighted several young African entrepreneurs who overcame a problem they saw in their communities through innovation and creativity. From agricultural trade mobile apps to urban recycling plans, these youths are contributing to sustainable development at a grass-roots level.

M-Farm and Vivuus: Providing Fair Trade to Small-Holder Farmers

African economies, like those of many developing countries', are highly dependent on agricultural production as both a percentage of GDP and proportion of domestic employment. Many African states have found great success, in producing select agricultural export commodities, establishing themselves as providers of quality products such as coffee, cocoa, flowers, rubber, and cotton. However, most of these same countries are net food importers with their governments historically favoring infrastructure investment and state financing of high-value (and oftentimes non-food) crops to be sold elsewhere. Therefore, small-holder farmers – those working plots of land typically two hectares or less in area – provide for significant percentages of local nutritional intake in their respective countries, especially in rural areas where access to imported food is less feasible or affordable.



Isaak Mogetutu, *M-Farm*

Small-holder farmers face a host of challenges, many of which are characterized by having too little information to make their efforts profitable and efficient. A principal component of any agriculture system is agricultural marketing. This is a process by which produce is purchased from farms, then transported, packaged, stored, and delivered to vendors where it is finally sold to consumers; this is where most value is added to agricultural produce in modern food systems. However,

in much of Africa where consumers buy generally less-processed fresh food, the marketing process is often limited to traders or agents buying produce and goods at the farm gate; transporting it themselves with trucks that farmers often cannot afford to rent; and selling to vendors at a higher price.

Two speakers from the first panel, Mr. Isaak Mogetutu and Mr. Richard Seshie, both 25 years old, have engaged in separate innovative new enterprises designed to help small-holder farmers capture more of the end-market value of the crops that they grow. They do this by providing farmers with price information, group selling, mobility and other systems that reduce the number of middlemen and the prevalence of price manipulation in the process of getting food from farm to table.

Mr. Mogetutu currently serves as the Innovation Officer for the Kenyan company M-Farm, which works on a three-tiered system of price information, group buying, and group selling. With M-Farm, farmers can now send a simple SMS message, such as “price sweet potato Nairobi,” and receive a prompt response with the day’s market price for a unit of sweet potatoes in kilograms. Having access to such information makes a large difference for farmers, who typically deal only with produce traders, influential economic middlemen who add little value of their own. Traders are aware of market prices and often withhold or misrepresent these to the farmers, resulting in farm gate prices received by those farmers equaling a small fraction of the end market price. Having access to timely information on prices helps to level the playing field for small producers, informs their decisions on where to sell, and secures the best market value for their labor.

Another core component of M-Farm’s operation is to help farmers benefit from economies of scale. Once farmers are able to increase their product output, they begin using information provided by M-Farm to choose selling locations as a group and pool their resources to buy better agricultural inputs in bulk, supported by accurate pricing information. Finally, M-Farm seeks to integrate the aforementioned traders into their infrastructure as agents paid by commission according to the number of farmers they work with. Mr. Mogetutu



Vivuus Motorized Cargo Bike

sees this as “rehabilitation,” and a way to move past resistance they may encounter when integrating M-Farm’s technology. The projects goal is to create more efficient marketing channels by connecting buyers at every level to farmers who are producing goods.

Mr. Seshie is the founder of Vivuus, a small company in Uganda that has focused on small-holder farmers’ knowledge of prices, as well as their mobility, which allows them to sell goods in markets where they can get the best return. The philosophical outlook and operations of Vivuus are comparable to those of M-Farm, providing price information and small means of transport via motorized cargo bikes, regular cargo bikes and trailers with digital internet access to assist farmers in transporting goods to the market of their choice. Traders have a stronghold on the supply channels of domestic food production in these rural areas because they can afford larger scale transportation, which gives farmers located farther from the market a chance to sell goods at all. When providing price information, Vivuus focuses on the role it can play in connecting female vendors with traders and others that move goods to ensure that female traders get quantities proportional to their actual demand and with accurate market prices.

Both Vivuus and M-Farm utilize innovative applications of technology to address and correct informational asymmetries that keep farmers poor and allow food insecurity to persist in rural areas. Both models are reliant on the most basic technology that is widely available – simple cellular phones, which most of their clients possess.

Though these pricing information systems require basic literacy and numeracy skills to be impactful, minimal training can turn an exploited farmer into a savvy market participant. A key feature of the M-Farm service in Kenya is that transactions are processed using the widely known M-Pesa system, an SMS-based money transfer and debit account product which has become very popular among Kenyans of all socioeconomic status for its convenience, simplicity, and low cost. Using M-Pesa, M-Farm’s clients and traders

never exchange money directly. Traders' commissions and farmers' payments for produce are paid over the phone by M-Farm, greatly reducing opportunities for manipulation or intimidation of farmers, and providing a transparent, full digital record of all transactions. Both speakers noted that though these new systems promote efficiency and increase benefits for producers through innovation, they have encountered opposition from agriculture traders who benefited under the informal process of marketing farmers' goods entirely themselves.

Eliminating cash-in-hand trades also makes a difference in terms of gender equity, according to both Mogetutu and Seshie. Though women are responsible for most farm work, it is their husbands whose traditional role includes handling money on behalf of the family. Unfortunately, this convention often leads to males capturing the entire value of women's work while contributing little to the nutritional and educational needs of a rural family with children. However, M-Farm's system seeks to address this inequity by bypassing men altogether, transferring payments at the best available market price that are transferred directly to the phone of the female farmer. As a result, a female farmer has better chance of spending her earnings in the interest of her and her family's well being. While this payment arrangement may address a symptom and not the core problem, the model confronts and addresses gender inequality and bias directly, and is a core benefit of this innovative company's business model.

At the conference, several audience members raised salient points about the limitations of small-holder farming, including competition with cheaper imported goods from industrialized farming economies that have a distinct cost (and sometimes quality) advantage over locally produced food. In many cases, imported staples are cheaper than the local alternative for a majority of citizens, particularly for the majority

“ [Vivuu] is basically the story of a startup that is being led by young Africans. It is the story of a startup that is using technology for social impact.”

Richard Seshie



Richard Seshie, *Vivuu*

of urban dwellers who are not engaged in subsistence farming. The global food crisis of 2008/2009, discussed by Mr. Seshie, challenged much of this thinking, as the cost of basic foods skyrocketed and consumers were exposed to the forces of the global market. He argued that this recent example provides justification for investment in national food production and domestic farmers in Africa that use

technology to operate as facilitate trade.

The discussion then turned to the issues of mitigating such price changes to include government incentives to set tariff schedules; it also focused on political economic challenges of addressing the needs of disperse, rural citizens versus densely-packed urban ones closer to centers of political power. Mr. Seshie spoke of a greater fear voiced by many farmers he works with – that of land grabs by their own governments, international agencies or even multinational corporations. These are, for now, not questions being addressed by the young entrepreneur panelists. For the time being, it is hoped that small-holders can improve their yields and livelihoods through innovation and give their children opportunities for education and opportunity for even more active economic participation.

Planet Green: Innovation for Environmental Stewardship and Affecting Cultural Change

Innovation in the interest of environmental sustainability is a strong and growing field, in terms of both scientific research and supporting behavioral change in society. Ms. Diana Mong'are, the youngest of the featured African innovators at only 19 years old, presented her inspiring story about the establishment of Planet Green, a recycling and waste management initiative which she has piloted and launched in her town in Kenya. Ms. Mong'are explained that she began her initiative as a reaction to the common practice in her community of discarding household waste haphazardly outside in the streets. Children could not play safely due to large volumes

of garbage occupying public spaces and around people's homes. Wanting to change this reality and help provide a safe space for kids, she has since started Planet Green, a trash collection and recycling program. Mong'are first consulted with residents in her community on the problem of poor waste management and asked them to pay a small fee for bags and trash collection, as well as separate their garbage into basic recyclable and non-recyclable categories. She now employs five youth from her community and hopes to hire more, as her innovative program – the first of its kind in her region – expands to other towns and cities. Planet Green identified a problematic public waste management issue and with some innovative thinking, created a sensible, environmentally sound business opportunity. The reduction of garbage in open spaces also has impacts on public health, especially during the rainy season, where areas temporarily flood and garbage intermingles with waste water. Aside from the obvious benefit to general sanitation, Mong'are posited that the incidence of typhoid and cholera are also reduced as the local environment gets cleaner.


Planet Green has already started to have positive local environmental and health impacts beyond just the reduction of litter. Ms. Mong'are pointed out that local carpenters and woodworkers, important players in the local economy, were generating substantial amounts of sawdust and wood chips, which they would then burn off. The resultant smoke in busy residential neighborhoods was unpleasant to breathe and harmful to human health. Mong'are decided to innovate. Knowing that the woodchip material is ideal for lining chicken coops to keep them cleaner, she saw an opportunity to collect and resell them to chicken farmers. The used chips can then be resold to crop farmers, or used by the chicken farmers themselves, as nutrient-rich plant fertilizer material.

Planet Green represents an interesting experiment of a small, for-profit company providing a service which elsewhere would be considered a public good. The long-term feasibility is uncertain, since



*Diana Mong'are,
Planet Green*

participants are not legally required to participate nor are activities supported financially by local taxes. One way the organization is seeking to ensure long-term success is through education initiatives. Ms. Mong'are realized early on that it was much easier to bring environmental education to children than to adults. She currently has programs operating at three different primary and day schools in her hometown where she visits every two weeks to give talks on the importance of taking care of the environment and occasionally leads field-trips or planting projects in the area.



"There is so much to life, that
if only we took care of our
environment, we could make the
world a better place. That is why I chose
this path for business. Environmental
conservation is... the only way to
make life cheaper and much better,
reduce cost, and
reduce waste of
resources."

Diana Mong'are

PAYING IT FORWARD: HOW TO SUSTAIN NEW GENERATIONS OF FEMALE AND YOUTH LEADERS IN STI

Participation in today's global economy requires investment and training in with information technologies and entrepreneurship for both men and women. The second panel of the conference was comprised of individuals focused on sustaining new generations of female and youth leaders in ICT, as well as on the development of leadership skills and mentorship programs for African youth.

Women's Technology Empowerment Centre and the African Technology Policy Studies Network: STI Training and Empowerment for Women and Youth in Africa



Oreoluwa Somolu,
W. Tec

Ms. Oreoluwa Somolu, Executive Director of the Women's Technology Empowerment Centre (W.Tec) in Nigeria, explained her group's mission to empower girls and women to become drivers of innovation. Ms. Somolu began by discussing some of the key barriers for African women and girls that still need to be overcome, one of which is the high cost of technology devices. Another barrier she addressed is the current social structure that reinforces traditional roles that girls play in the family, which can preclude girls' work and studies outside the home. Somolu posited that social perceptions and preferences that suggest work

with technology is something solely "for men only" must also change. She argued that up to a certain age, girls are as interested in technology as boys; but according to limited research conducted on the topic in Nigeria, social norms cause girls' interest to fade as they get older.

W.Tec has responded to these problems by launching a series of technology training camps for girls. The two-week camps provide both basic and advanced computer literacy and skills, as well as context-specific concepts such as staying safe online while using social networking applications. W.Tec held two camps in the summer of 2012, and plans to convene three in 2013, with ongoing

discussions for an additional camp focusing on robotics. The organization's model requires very direct access to individuals to be effective; as of the conference date, there were 108 graduates. Through the use of evaluation instruments designed by W.Tec, it has been determined that the impact on those participating is measurable and positive. The results indicated to Somolu that on average, six months after participating in a camp, 77 percent of girls still use some or all of the tools that they

had learned. Forty percent of those who responded said that they had decided to pursue careers in science and technology. Others confirmed that after completion of the camp, they were interested in integrating technology into their careers and daily lives.

Perhaps most importantly, Somolu said that she's seen positive changes in the overarching sense of confidence achieved by girls participating in the camps. As a part of the camp, W.Tec brings in female CEO's from technology companies in Nigeria and the surrounding area for career talks. She has heard from students afterward that they were excited to see women in those roles, and that until recently they had always thought of a tech CEO as a 'man's job.' After listening to the career talks, Somolu witnessed a transformation the girls, who began to say, "I can do anything."

Somolu believes W.Tec helps young women to think and to plan their futures, and to start to see a place for themselves in the fields of science and tech.

Ms. Edith Kirumba, Coordinator for the African Women's Forum on Science and Technology at the African Technology Policy Studies Network (ATPS) in Kenya, discussed how she and her organization also encourage new generations of youth and girls to be leaders in innovation and technology. ATPS is a multi-disciplinary network of researchers, private sector actors, policymakers, academics, and civil society

“We want girls to think and plan their futures, and to start to see a place for themselves in science and tech.”

Oreoluwa Somolu



Edith Kirumba,
ATPS

actors that promotes the education, production, dissemination, and utilization of science, technology and innovation for development and environmental sustainability in Africa by Africans.

The African Women's Forum on Science and Technology engages youth and women through training to help them become "champions of the innovation agenda." Kirumba's organization maintains incubation hubs for training in many technological fields, in addition to a small grants program providing post-doctoral fellowships, internships, scholarships, and awards for youth innovators. The mentorship program of the African Women's forum,

“We are trying to develop and sustain a generation of young women and men who can take the development agenda of Africa forward through innovation.”

Edith Kirumba

where up to five young women are paired with strategically chosen mentors who groom them to become mentors for others, is mirrored by another ATPS organization called the African Youth Forum. "What is lacking [in Africa]," she explained, "is the sustainability of the ideas that are coming up." In partnerships with groups regional bodies, such as the African Union and the East African Community, Kirumba's organization hopes to help empower women and youth to lead sustainable development forward.

Afrolehar LLC and the Hive Colab: Attracting Investment in Young African Entrepreneurs through Support Platforms and Mentorship

Ms. Rahel Getachew, Founder and Managing Director of Afrolehar LLC, spoke to the importance of marketing for development in Africa through outreach activities to all African stakeholders; this includes those of the Diaspora, which is a critical group to her for capital and knowledge transfer. Ms. Getachew's company is a cross-cultural branding and consulting agency, focusing on developing technology and information platforms that both showcase great innovation by Africans and facilitate the growth of it, especially among young entrepreneurs. Afrolehar provides public relations and communication strategies, events and program management,

support for creative productions and strategies for integrated marketing through its four existing platforms: 1) Agrifica, which is based on merging technology and agribusiness opportunities to raise the scale of small projects; 2) Techrica, which operates in a similar fashion for Africa's technology industry; 3) Kimwili, which partners with international athletes to host sports led events on the continent in conjunction with its news operations; and 4) Knock-Knock-Africa.

Getachew highlighted the damaging effects that consistently negative reporting has on Africa and argued that changing perceptions is critical to attracting investment and diaspora involvement in youth innovation, and to making youth technology programs available to both girls and boys. "The darkest thing about Africa," she says, "is our ignorance of it." The lack of confidence that results from negative perceptions is a major factor limiting investments on the continent. She emphasized the need to build new economic environments in which African youth can grow, helping build more diverse, resilient and modern economies, affecting social change and creating opportunities for young women.

Ms. Liz Ngonzi, Adjunct Professor at the NYU Heyman Center and international entrepreneur, focused her discussion on "paying it forward." As someone who was born in Uganda and has had mentors guide her in her own life, Ngonzi places high importance on helping future generations of African leaders achieve their own goals, particularly girls. She explained the philosophy of "Ubuntu" – meaning I am because of who we all are – is a necessity when providing support to someone through mentorship, sponsorship, coaching or board membership.

Ngonzi provided several examples throughout her presentation of how others can help to pay it forward, such as through



Rahel Getachew,
Afrolehar LLC

“The darkest thing about Africa is our ignorance of it.”
Rahel Getachew



Liz Ngonzi, NYU

supporting organizations and/or individuals that provide a platform for young people to develop skill sets they need to become leaders in technology and innovation. One such organization on whose board she serves is called the Hive Colab, an innovative workspace for African entrepreneurs to test business models and launch full operations in a modern, well equipped and internet-connected urban business space. Hive Colab operates in Kampala, Uganda, and currently is home to several young African businesses. The Hive Colab model provides modern office space as a capital

intensive base of operations with a legitimate street address; this supports entrepreneurs and innovators with lower risk and up-front costs on new projects, and lends them a certain amount of legitimacy.

Ngonzi also presented were Apps4Africa contest and the Anakazi center. Apps4Africa is a continent wide competition for tech startups where the winners are given access to resources and incubators to scale-up their projects. Previous winners include Women in Technology Uganda, which teaches coding to young girls; and iCow, which gives farmers information on gestation periods to encourage dairy production. The Anakazi Center is an organization dedicated to facilitating the empowerment of African women around the world.

It was founded by Yareka Mhango, who met Ngonzi when she interviewed her for a radio show. Such organizations and projects may, at times, be more effective investments to business innovators in developing countries than general monetary donations, and should be of interest to the development community.

Mr. David Moinina-Sengeh, originally from Sierra Leone and the founder of Innovate Salone based at the Massachusetts Institute of Technology (MIT) in Boston, shared a

“Ubuntu means, to me, ‘I am because of who we all are.’ I have to be willing to not only help you, but help the next person.”

Liz Ngonzi

similar vision with the other panelists about the importance of program sustainability in order to support the needs of many young innovators to succeed in Africa. Moinina-Sengeh, currently a Ph.D. student at MIT, has worked on programs for broader distribution of mosquito nets and has recently applied himself to facilitating youth innovation for development in Sierra Leone. Moinina-Sengeh's core work at MIT involves the design of new prosthetic limbs, which he intends for use by people in both Boston and Sierra Leone.

Moinina-Sengeh shared that the MIT Media Lab constitutes a diverse pool of resources to support innovative problem-solving ideas. When he began designing prosthetics to bring to Sierra Leone, he realized that he had become party to one of his country's principal problems – he was a foreign actor coming with outside ideas to a country over-dependent on foreign resources and actors. This is when he set out launch Innovation Salon, an innovation program designed for Sierra Leonean kids to come to MIT to design and develop useful innovations that alleviate some type of daily issue in their country. Mr. Moinina-Sengeh shared some of Innovate Salone's recent activities working with Sierra Leonean children, including: 1) a boy who designed a combined radio, generator, and battery array for use in rural areas; 2) a girl with innovative ideas for fashion design; and 3) a rural school that, faced with food insecurity, started farming operations with students on its premises. Moinina-Sengeh praised efforts in fostering and recognizing local youth innovation, but is cautious in his optimism. "Being innovative is not enough," he says. He posited that learning about personal integrity is an important facet of youth programs, as Sierra Leone and many other countries face substantial corruption which directly impedes economic and social development. Mr. Moinina-Sengeh also said that while it is positive to celebrate the innovations of young people, much more effort is needed to learn how to bring these innovations to scale and not have them wither in obscurity.



David Moinina-Sengeh,
Innovate Salone

PARTNERSHIPS, RESOURCES, AND PLATFORMS

Many participants of the conference cited partnerships with the private sector, international NGOs, universities and established diaspora members as essential to facilitating both innovation and cultural change in Africa. Innovators need resources, business skills, and mentoring to bring their concepts to fruition. The conference established some consensus around the importance of innovation hubs, such as the Hive Colab, as essential to the development of new, locally grown businesses in Africa which will render social and economic benefits to local people.

“If the development community, investors, and diaspora fail to present women and youth with appropriate ICT training, we will miss a crucial development opportunity with ramifications for gender equity, economic growth, and food security.”

Ambassador Robin Sanders

U.S. Ambassador Robin Sanders closed the conference, and touched on many of the success factors of youth innovation, beginning with the necessity of basic ICT knowledge. Ambassador Sanders commented that these skills are important to every aspect of the careers and lives of African innovators and youth whom we hope to empower. Sanders included the financing of SMEs, and creating linkages between SMEs, banks, and financial backers, as critical to ensure the next stages for innovation programs. She also highlighted the importance of incubation spaces for innovation that serve as novel uses of development funds and are critical to fostering actual participation in modern economies by small, locally-grown enterprises. Ms. Sanders commented

on the importance of the basic mobile platform, the ‘default device’ for future participation in markets and enterprise tool for dispersed, rural populations across the world. “To innovators and developers hoping to stimulate serious change,” she suggested, “think about what your platform will look like on a mobile phone.”

She concluded with a message of caution: "If the development community, investors, and diaspora fail to present women and youth with appropriate ICT training, we will miss a crucial development opportunity with ramifications for gender equity, economic growth, and food security."

Site Links:

<http://www.mfarm.co.ke/> - M-Farm

<http://Vivuuusrenewables.com/> - Vivuuus Renewables

<http://www.icow.co.ke/> - iCow

<http://apps4africa.org/> - Apps4Africa

<http://appfrica.com/> - Appfrica

<http://witug.org/> - Women and Technology in Uganda

<http://www.afrolehar.com/> - Afrolehar

<http://www.atpsnet.org/> - African Technology Policy Studies Network

<http://www.w-teconline.org/> - Women's Technology Empowerment Center

<http://hivecolab.org/> - Hive Colab

<http://www.anakazi.org/> - The Anakazi Network for Women's Empowerment and Development



Ambassador
Robin Sanders

CONFERENCE BREAKDOWN

INTRODUCTION BREAKDOWN

10:15am-10:30am: Welcome and Introductions

- Steve McDonald, Director, Africa Program and the Project on Leadership and Building State Capacity, The Wilson Center

10:30am - 12:00pm: From Local to Global, Rural to

[The boy looking at the computer \(before page 1\)](#)–

[attributed to the World Bank on flickr](#)

[Youth working on computers \(page 3\)](#)–

[attributed to the World Bank on flickr](#)

Urban: Problem-Solving through Innovative Solutions for Sustainable Development

- Isaak Mogetutu, Chief Innovations Officer, M-Farm
- Diana Mong'are, Founder, Planet Green
- Richard Seshie, Founder, Vivuus
- Rahel Getachew, Founder and Managing Director, Afrolehar, LLC

Moderated by Kevin Urama, Executive Director, African Technology Policy Studies Network

12:00pm - 1:00pm: Luncheon

1:00pm - 2:30pm: Paying it Forward: How to Sustain New Generations of Female and Youth Leaders in STI

- Edith Kirumba, Coordinator, African Women's Forum on Science & Technology, African Technology Policy Studies Network
- Liz Ngonzi, Adjunct Faculty, NYU Heyman Center for Philanthropy & Fundraising and International Entrepreneur, Educator and Speaker
- Oreoluwa Somolu, Executive Director, W.Tec
- David Moinina-Sengeh, Founder, Innovate Salone, MIT Media Lab (via video-conference)

Moderated by Roger-Mark DeSousa, Director, Population Environmental Change and Security Program, The Wilson Center

2:30pm - 2:45pm: Closing Remarks

H.E. Robin Sanders, Former United States Ambassador to the Federal Republic of Nigeria

ENDNOTES

- 1 eTransform Africa: The Transformational Use of Information and Communication Technologies in Africa, 2012. This report was prepared jointly by the African Development Bank (AfDB) and the World Bank (WB), with support from the African Union (AU). For an online copy, please visit <http://siteresources.worldbank.org/TINFORMATIONANDCOMMUNICATIONANDTECHNOLOGIES/>

Resources/282822-1346223280837/MainReport.pdf.

- 2 For more on the African Union Commission Youth Division, please visit <http://www.africa-youth.org/>.

The Africa Program was established at the Woodrow Wilson International Center for Scholars in 1999 with the generous support of the Ford Foundation. Serving as a bridge for academics, diplomatic practitioners, policymakers, and the private sector, from Africa and the United States, the Africa Program is a nexus for developing informed and effective policy decisions on Africa and conducting conflict transformation and peace building programs in selected African countries.

Authors Biographies

Roger-Mark De Souza is Director of Population, Environmental Change, and Security Program at the Woodrow Wilson International Center for Scholars. He leads programs on reproductive and maternal health, environmental security, and livelihoods, including the Center's Environmental Change and Security Program and the Global Health Initiative. Before joining the Center in 2013, De Souza served as vice president of research and director of the climate program at Population Action International, where he provided strategic guidance, technical oversight, and management of PAI's programs on population, gender, climate change, environment, and reproductive health. De Souza holds graduate degrees in international relations and development policy from George Washington University and the University of the West Indies.

Rahel Getachew is Founder and Managing Director of Afrolehar LLC, a cross-cultural branding consulting company that aims to be the bridge between Africa and North America by providing integrated marketing and communications services, including video and documentary production. For over ten years, she has coordinated and managed various projects, productions, programs and events for various companies and organizations ranging from the Institute for Higher Education Policy to the International Organization for

Migration and the Black Youth in Action. Getachew earned her Bachelor of Arts with a major in Political Science and a minor in Business Studies aside from her associate degree in Sociology and Psychology, and obtained a certificate in teaching (TESL/TOEFL) as well as in ICT.

Edith Kirumba is Project Coordinator of the African Women Forum for Science and Technology at the African Technology Policy Studies Network. She has a Bachelor's Degree in Environmental Studies (Kenya, First Class Honours); MSc. Environmental Studies (Kenya); Ph.D. in Human Geography (University of Bordeaux 3 – France). Edith is also a Post-Doctoral Research Officer at the African Technology Policy Studies Network (ATPS) in Nairobi, Kenya, where she undertakes research, capacity building, information dissemination, knowledge brokerage and fundraising activities. Edith has a wealth of experience having worked in several international institutions and within global research programs at the World Agroforestry Centre (ICRAF), Technoserve, the International Livestock Research Institute and the French Institute for Research in Africa (l'Institut Français de la Recherche en Afrique).

Steve McDonald is Director of the Africa Program and the Project on Leadership and Building State Capacity at the Woodrow Wilson Center for International Scholars in Washington, DC. McDonald helped to design, initiate and now manage the Center's leadership capacity building and post-conflict resolution programs in Burundi, the Democratic Republic of Congo and Liberia. McDonald began his career in Africa in 1970 as a Foreign Service Officer with service in Uganda and South Africa, and as Desk Officer for Angola, Mozambique, Cape Verde, Guinea-Bissau and Sao Tome and Principe. After leaving the Foreign Service in 1980, McDonald moved to the non-profit sector where he has headed the US-South Africa Leader Development Program and Aspen Institute's Southern Africa Policy Forum and, then, served as Executive Vice President of the African-American Institute. McDonald holds a Master's degree in African Politics from the School of Oriental and African Studies, University of London and a Bachelor's in French and Political Science from Southwest Missouri State University.

Isaak Mogetutu is Chief Innovations Officer at M-Farm, a software solution and agribusiness company that allows Kenyan farmers to text the number 3555 to get information pertaining to the retail price of their products, buy their farm inputs directly from manufacturers at favorable prices, and find buyers for their produce. The M-Farm system provides farmers a group selling service where they can connect with other farmers from the neighborhood to jointly market crops in greater volume, helping rural farmers access large-scale local and international markets.

David Moinina-Sengeh is President and Co-Founder of Global Minimum Inc. (GMin), an international NGO that has distributed over 15,000 mosquito nets in Sierra Leone. Currently, GMin's main project is Innovate Salone, the first-ever competition created to foster a culture of innovation among high-school students in Sierra Leone. David was born and raised in Sierra Leone, and attended the Red Cross Nordic United World College in Norway before earning his Bachelors degree in Biomedical Engineering at Harvard College, where his undergraduate work focused on making a stable, aerosolized BCG vaccine against Tuberculosis for delivery to the lower lungs. David is currently a first-yr Ph.D candidate at the MIT Media Lab. His research in the Biomechatronics Group focuses on the design of comfortable prosthetic sockets and wearable interfaces. He has worked in Zambia, Namibia, Dubai and other locations on various projects on education, health care delivery, and medical device design.

Diana Kerubo Mong'are is Founder of Planet Green, a local recycling initiative that mobilizes farmers, carpenters, households, and a local recycling company that aims to reduce waste build up. Ms. Mong'are started this project when she was 16 years old and was a 2012 Anzisha Prize Fellow for her innovative idea.

Liz Ngonzi is Adjunct Faculty at NYU's Heyman Center for Philanthropy & Fundraising. She is also an international entrepreneur, educator and speaker. Born in Uganda and "raised" at the United Nations, Ngonzi develops strategic partnerships between NGOs, social enterprises, and funders in the U.S. and Africa. Her accomplishments include facilitating multi-stakeholder partnerships between universities in the U.S. and East Africa; training 250+ NGO's in Africa on how to engage supporters through new media; and developing the ground-breaking SXSW 2012 panel: Africa, Tech & Women: The New Faces of Development. Ngonzi also managed the successful July 2012 U.S. launch of the African Medical and Research Foundation's (AMREF) Stand Up for African Mothers global campaign. Ngonzi serves as a 2011-2013 Entrepreneur-in-Residence at Cornell University and is the Africa Adviser to Syracuse University's iSchool. She is a proud member of 85 Boards, Diaspora African Women's Network (DAWN) and Womencentric. She holds an MMH degree from Cornell University and a BS in Information Systems degree from Syracuse University.

Robin Renee Sanders is the owner of FEEDS, LLC Advising Firm focused on Africa business strategies, and is also founder of the FEEEDS Advocacy Initiative, which works on economic development issues. Prior to this, she served as the U.S. Ambassador to Nigeria and Republic of Congo and as U.S. Permanent Representative to the West African Regional Organization ECOWAS. Sanders also served as the Director of the International Affairs and Communications Departments at AFRICARE. As an academic, Sanders was the International Affairs Advisor and Deputy Commander of the Eisenhower National Resource College at the National Defense University. Sanders has served twice as the Africa Director at the National Security Council at the White House, and has a range of foreign affairs, public policy, and analytical experiences. Sanders holds a Doctor of Science degree from Pittsburgh's Robert Morris University (RMU); Master of Art and Master of Science degrees in International Relations, Africa Studies, and Communications, respectively from Ohio University; and a Bachelor of Arts in Communications from Hampton University.

Richard (Ricky) Seshie is the Founder and Managing Director of Vivuus Renewables, a social enterprise that combines “mobile + mobility” solutions to help informal city vendors of food staples and smallholder farmers escape poverty. Vivuus Renewables currently operates in Cote d’Ivoire and Ghana. Ricky has been awarded several awards and notable mentions as Orange African Social Entrepreneur of the Year 2012; Yoxi Social Innovation Rock star 2012; International Telecommunications Union Young Innovator Fellow 2011; Global Top 40 Under 40 AIESEC Alumni Awardee 2011; Pearson Fellow for Social Innovation 2010; and Global Changemaker Fellow 2009.

Oreoluwa Somolu is Executive Director of the Women’s Technology Empowerment Centre (W.TEC), a non-profit based in Nigeria working to encourage Nigerian women to use technology to empower themselves socially and economically. W.TEC’s works on projects that build technology skills among women, notable among these is the Girls Technology Camp, which seeks to help girls develop an early interest in computers and other information and communication technology. Oreoluwa worked in the United States at a non-for-profit organization on projects that explored the interplay between gender and technology and sought to attract more girls and women to study and work in science and technology-related fields. She managed an oil and gas career awareness program for secondary school and higher education students in Nigeria prior to setting-up W.TEC. She has a Bachelor’s degree in Economics from Essex University, U.K., a Master’s degree in Analysis, Design and Management of Information Systems from the London School of Economics & Political Science and a Certificate in Applied Sciences from the Harvard University Extension School. She is a recipient of the Anita Borg Change Agent Award for her commitment to issues of women in computing in Nigeria.

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